

PATENT

Attorney Docket No. A-71183/DJB/VEJ
Attorney Matter No. 461124-00077
Application No. 10/009,325

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A solid oxide fuel cell system component which is adapted to be exposed to an oxidising atmosphere in the fuel cell system ~~[[system]]~~ and which is formed of a heat resistant alloy ~~[[alloy]]~~ having a composition, in wt%, of:

Al 5.0-10.0

Si 0.1-3.8

Mn \leq 0.5

Cu \leq 0.23

Ni \leq 0.61

C \leq 0.02

P \leq 0.04

S \leq 0.04

Cr < 5.0,

and residue Fe, excluding incidental impurities.

2. (Currently amended) A solid oxide fuel cell system component according to claim 1, which contains no more than about 8.5 wt% Al.

3. (Previously presented) A solid oxide fuel cell system component according to claim 1 which contains less than 0.05 wt% Mn.

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4. (Previously presented) A solid oxide fuel cell system component according to claim 1 wherein the alloy has a composition, in wt%, of:

Al 6.0 ± 1.0

Si 1.0 ± 0.5

C $0.005 - 0.02$

P ≤ 0.04

S ≤ 0.04

Cr ≤ 0.10

(Al + Si) = 6.5 to 7.5

Residue Fe, excluding incidental impurities.

5. (Previously presented) A solid oxide fuel cell system component according to claim 1 wherein the alloy contains no Cr.

6. (Previously presented) A solid oxide fuel cell system component according to claim 1 having a surface layer of Al_2O_3 .

7. (Currently amended) A solid oxide fuel cell system component according to claim 6 wherein the Al_2O_3 surface layer has a thickness in the range of from about 1 to about 10 microns. ~~[[, preferably from about 1 to about 3 microns,]]~~

8. (Previously presented) A solid oxide fuel cell system component according to claim 1 wherein source material for the alloy at least includes scrap metal.

9. (Previously presented) A solid oxide fuel cell system component according to claim 1 which is a gas separator disposed or adapted to be disposed between adjacent fuel cells in the system.

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10. (Previously presented) A solid oxide fuel cell system component according to claim 1 which is a component selected from the group consisting of a manifold, a base plate, a current collector strap, ducting, a heat exchanger and a heat exchanger plate disposed or adapted to be disposed in the solid oxide fuel cell system.

11. (Currently amended) A solid oxide fuel cell system component according to claim 1 ~~[[ia]]~~ which ~~[[one or more components]]~~ is adapted to be exposed to a temperature in excess of 750°C and an oxidising atmosphere, ~~[[are in accordance with claim 1.]]~~

12. (New) A solid oxide fuel cell system component according to claim 6 wherein the Al₂O₃ surface layer has a thickness in the range of from about 1 to about 3 microns.

13. (New) A solid oxide fuel cell system comprising a solid oxide fuel cell system component which is adapted to be exposed to an oxidising atmosphere in the fuel cell system at a temperature in excess of 750°C and which is formed of a heat resistant alloy having a composition, in wt%, of:

Al		5.0-10.0
Si		0.1-3.8
Mn	≤	0.5
Cu	≤	0.23
Ni	≤	0.61
C	≤	0.02
P	≤	0.04
S	≤	0.04
Cr	<	5.0,

Residue Fe, excluding incidental impurities.